	Application No.	Applicant(s)
Notice of Allowability	10/658,978	THERRIEN ET AL.
	Examiner	Art Unit	
	Chelcie Daye	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _10/27/06_.

2. ☒ The allowed claim(s) is/are _1-7 and 12_.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

    Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _10/27/06_

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

DETAILED ACTION

1.   Applicant's amendments and terminal disclaimers filed August 2, 2006 have been

fully considered and they are deemed to be persuasive.

EXAMINER'S AMENDMENT

2.   Authorization for Examiner's Amendment was given by Boris Matvenko in a

telephone interview on 07/31/06.

3.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

4.   The application has been amended as follows:

1. (Currently Amended) A data protection system for protecting <u>files and modified</u>

<u>versions of the</u> files on a fileserver, the system comprising:

a primary repository in communication with the fileserver via a network, the

primary repository having:

a primary repository node operative to store <u>the files and modified versions of the</u>

<u>files</u> data;

a primary repository node API in communication with the primary repository node

and with the network and operative to communicate with the fileserver;

a primary repository file transfer module in communication with the network and with the primary repository node and adapted for receiving the files and modified versions of the files from the fileserver;

a data mover in communication with the primary repository node API and operative to supervise the replication of the files and modified versions of the files from the fileserver to the primary repository node;

a location component in communication with the data mover and operative to store file location data for each file and each modified version of each file;

a directory service operative to maintain storage state for the primary repository node; and

a node manager in communication with the location component and with the directory service and operative to manage primary repository node storage capacity and performance.

2. (Previously Presented) The data protection system of claim 1 wherein the system further comprises:

a fileserver having:

a filter driver operative to intercept input/output activity initiated by client file requests and to maintain a list of modified and created files since a prior backup;

a file system in communication with the filter driver and operative to store client files;

a policy cache operative to store a protection policy associated with a set of files;

a mirror service in communication with the filter driver and with the policy cache,

the mirror service operative to prepare modified and created files in a share to be

written to the primary repository node as specified in the protection policy associated

with the set of files;

a location cache in communication with the mirror service and operative to

indicate which repository should receive an updated version of an existing file; and

a location manager coupled to the location cache and operative to update the

location cache when the system writes a new file to a specific repository node.

3. (Previously Presented) The system of claim 2 wherein the mirror service

directs new versions of an existing file to the repository to which prior versions of the file

were written.

4. (Currently Amended) The system of claim 2 wherein the system further

comprises:

a fileserver API coupled to the mirror service and operative to communicate with

a repository; and

a fileserver file transfer module in communication with the file system and

operative to transfer the files and modified versions of the files from the file system to at

least one repository.

5. (Currently Amended) The system of claim 4 wherein the primary repository

further comprises:

a protection policy component in communication with the data mover and

operative to determine whether new versions of existing files should be compressed

and whether older <u>modified</u> versions of existing files should be maintained.

6. (Currently Amended) The system of claim 5 wherein the system further

comprises:

a remote repository in communication with the primary repository via a network,

the remote repository having:

a remote repository node operative to store data;

a remote repository node API adapted for communicating with the remote

repository node and with the network;

a remote repository file transfer module in communication with the primary

repository file transfer module and with the remote repository node and adapted for

receiving <u>the</u> files <u>and modified versions of the files</u> from the primary repository file

transfer module;

a data mover in communication with the remote repository API and operative to

supervise the replication of <u>the</u> files <u>and modified versions of the files</u> from the primary

repository node to the remote repository node; and

a location component in communication with the data mover and operative to

store file location data <u>for each file and each modified version of each file;</u>

a directory service operative to maintain storage state for the remote repository

node; and

a node manager in communication with the location component and with the

directory service and operative to manage primary repository node storage capacity and

performance.

7. (Previously Presented) The system of claim 2 wherein the protection cache is

operative to define which repositories are used, how often data protection occurs, how

many replicas are maintained within each repository, and how modifications to share

data are maintained.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Currently Amended) A data protection system for maintaining historical

backup copies of files on a fileserver, the system comprising:

a primary repository in communication with the fileserver via a network, the

primary repository having:

a primary repository node operative to store historical backup copies of a file on

the fileserver;

a primary repository node API in communication with the primary repository node

and with the network and operative to communicate with the fileserver;

a backup file transfer module in communication with the network and with the

primary repository node and adapted for receiving historical back up copies of files from

the fileserver;

a data mover in communication with the primary repository node API and operative to supervise movement of historical backup copies of files from the fileserver to the primary repository node;

a location management module in communication with the data mover and operative to maintain location of historical backup copies of files;

a directory service operative to maintain location and duplication of historical backup copies of files; and

a node manager in communication with the location management module and with the directory service and operative to manage primary repository node storage capacity and performance;

wherein said historical backup copies of files include modified versions of the files.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Points of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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